[*November* 2, 1927.]

Mummy as a Drug.

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ABSTRACT.—The use of mummy as a drug was widespread in Europe from the twelfth to the seventeenth centuries, and its employment lingered on for a hundred years later.

Its supposed virtue was originally based upon the medicinal properties of natural bitumen obtained from the Dead Sea and elsewhere. During the Middle Ages mummy was obtained from embalmed human bodies—in Egypt—which were believed to have been prepared with bitumen. Even at the present day the statement is current that the Egyptians used bitumen for mummification, but this is erroneous, for the embalming-material is resin, although its appearance often simulates that of bitumen.

The supply being obtained from mummified human bodies, the virtues of the drug were transferred to the bodies themselves. In course of time the term mummy lost its original association with bitumen, and was applied to medicated flesh in general.

The use of mummy in medicine did not finally become obsolete until the latter part of the eighteenth century.

The supplies of mummy sold to apothecaries in Europe were first obtained from genuine Egyptian mummies, but when it became difficult to procure these, spurious substitutes were made from recently dead bodies which were medicated by the purveyors. Desiccated bodies from North Africa, and Guanche mummies from the Canary Islands, were also exported to Europe and sold to the apothecaries.

IT is a well-known fact that throughout the Middle Ages, and long after their close, mummy was an important article in the stock-in-trade of the apothecary. Its efficacy was held in high esteem, and commercially it commanded a good price. An extensive trade was carried on between European apothecaries and their agents in Egypt and Syria who supplied the mummies from which the drug was obtained. We will accordingly trace in outline the history of mummy as a drug, for its reputation is founded primarily on the medicinal properties of a natural product which was known to the early writers.

Pliny describes the bitumen produced by the Dead Sea (Lake Asphaltites),[1] and states that it was manufactured by a people called the Deximontani.[2] Elsewhere he gives us more explicit details. He describes several different kinds of bitumen: *limus* from a lake in Judæa, *terra* from the neighbourhood of Sidon, and *liquidum*, which was white, from Babylonia. He also mentions a liquid bitumen from Apollonia. All these, he states, were called by the Greeks *pissasphaltum*, and notes further that an oily variety from Sicily was used as lamp-oil and for treating scabies in cattle. All these varieties were much in request as drugs, and the merchants were wont to eke out their supplies by adulterating the pure drug with pitch. Pliny then specifies the medicinal uses of bitumen. The Babylonian kind, he says, was good for cataract and other affections of the eyes, and was efficacious also for various skin diseases, lichen, leprosy and itch, and also for gout. All kinds were good for the eyelashes (trachoma and similar complaints), and for the teeth if mixed with nitre. As a potion, bitumen taken with wine cured coughs and shortness of breath, and is a remedy for dysentery. Taken with vinegar, it removed clotted blood, and assuaged pain arising from rheumatoid troubles in the lumbar region and

1 *Natural History*, v, 15.
2 *Ibid.*, vi, 26.

in the joints. For quartan fever it was given with mint (*hedyosmus*) and with myrrh. Bitumen was also put to gynæcological uses: inhaled with wine and castoreum, as a fumigation, and as a draught taken with wine. Finally, made into a plaster with flour, it was a good hæmostatic and heals wounds.[1]

Diodorus Siculus speaks at some length of bitumen from Babylonia and from the Dead Sea, and of the medicinal values thereof.[2] He affirms that the Barbarians derived great revenues from asphaltum, and exported it to Egypt, where it was sold for embalming the dead. For this purpose it was mixed with other spices, for without such admixture it would not preserve bodies permanently from decay.[3]

Strabo also states that asphaltum was used by the Egyptians for embalming.[4]

Dioscorides describes two similar drugs, *ἀσφάλτος* and *πισσασφάλτος*, one of which, he says, came from the mountains. His account of the drugs and their uses is similar to that of Pliny.[5]

It is not proposed to go more fully into the accounts of classical writers who deal with asphalt or bitumen, but we may give a passing mention to one or two more. Celsus prescribed bitumen for *nervorum dolor*,[6] for dispersing pus,[7] and for removing congestions in any part of the body.[8] Flavius Josephus describes the peculiar properties of the lake which produced bitumen, and adds: "This bitumen is not only useful for the caulking of ships, but for the cure of men's bodies; accordingly it is mixed in a great many medicines."[9] Bitumen as a drug was widely used. The Byzantine school recognized the virtues of *Bitumen Judaicum* from the Dead Sea,[10] and the substance, sometimes called *mumia*, occurs again and again in Syriac medical books.[11]

Mumia, from which our word "mummy" is derived, is of Persian origin, and primarily meant wax, but was also used to denote the natural bitumen which issued from the "Mummy Mountain." The word was adopted by the Arabs, and was applied not only to the drug, but to the bitumen of the Dead Sea, and to the "bitumen" with which mummies were embalmed in Egypt. The tradition, still repeated by modern writers, that bitumen was the staple embalming material in Egypt, is erroneous. Bitumen was probably never used for this purpose and has never been identified in many specimens which have been analysed for me by competent chemists, and the experience of Mr. A. Lucas and others has been the same.[12] The tradition has probably arisen, partly from the statements of Diodorus and Strabo quoted above, and partly because many resins, and bodies treated with resin, are black and lustrous and simulate bitumen, but the resemblance is delusive. If indeed bitumen was used in embalming, its presence has so far eluded modern scientific research. Neither Herodotus,[13] nor Diodorus,[14] mentions bitumen in their well-known descriptions of Egyptian embalming. From the fact, or the belief, that bitumen was used in the preparation of mummies, the term became applicable not only to the material, but to the bodies themselves.

Avicenna (980-1037) describes *mumia* as useful for a variety of purposes, including abscesses, eruptions, fractures, concussions, paralysis, affections of the

1 *Ibid.*, xxxv, 51.
2 *Bibl. Hist.*, ii, 12 and 48.
3 *Ibid.*, xix, 99.
4 *Geogr.*, xvi, ii, 45, *χρῶνται δ' Αἰγύπτιοι τῇ ἀσφάλτῳ πρὸς τὰς ταριχείας τῶν νεκρῶν.*
5 *De Mat. Med.*, i, 100, 101.
6 *De Medicina*, iii, 27, 2. 7 *Ibid.*, v, 3.
8 *Ibid.*, v, 11.
9 *Bella*, iv, 8, 4.
10 *Paulus Ægineta*, iii, 54, 78, 97, 130 and often.
11 Budge, *Syrian Anatomy*, etc., index, *s. v.*
12 *Preservative Materials used in Embalming*, pp. 34 ff.
13 *Hist.*, ii, 85-88. 14 *Bibl. Hist.*, i, 91.

throat, lungs and heart, debility of the stomach, disorders of the liver and spleen, and as an antidote for poisons. As a drug, however, he never prescribes it alone, but always mixed with some herb, or in some convenient vehicle, such as wine, milk, butter, or oil. The *mumia* described by Ibn-el-Beithar of Malaga (died 1248) is evidently the same drug as that mentioned by Dioscorides.[1]

The writers above mentioned are Greek, Roman or Oriental, and from the works of these mummy passed into the medical literature of Western Europe. A perusal of the early medical works, both manuscript and printed, of Britain, France and Germany, from the earliest extant to the seventeenth century and even later, yields almost innumerable instances of the use of mummy as a medicine, and to give a representative series of extracts from such writings would not only occupy much space, but would involve a great deal of repetition. We shall have occasion, however, to refer to a few of them.

Guy de la Fontaine, who was physician to the King of Navarre, made a journey to Egypt in 1564 and visited Alexandria for the express purpose of making inquiries into the use and supply of mummy. He was acquainted with the celebrated Ambroise Paré (1509-1590), who wrote much on the subject of mummy, but condemned its use in strong terms. Paré asserted that neither the doctors who prescribed it, the apothecaries who sold it, nor the patients who took it had any real knowledge of its origin and nature.

"This wicked kind of drugge doth nothing help the diseased, in that case wherefore and wherein it is administered, as I have tryed an hundred times, and as Thevet witnesses, he tryed it himselfe when as hee tooke some thereof by the advice of a certaine Jewish physition in Egypt, from whence it is brought; but it also inferres many troublesome symptomes, as the paine of the heart or stomacke, vomiting and stinke of the mouth . . . I, perswaded by these reasons, doe not only myselfe prescribe any hereof to my patients, but also in consultations, endeavour what I may, that it bee not prescribed by others."[2]

We shall presently see the reason why Paré denounced a drug which had such popularity in his day, and which was recommended by the most eminent physicians, although it was not always appreciated by the patients to whom they administered it.[3]

The natural bitumen of the Dead Sea, and elsewhere, of which Pliny and others speak, was in many cases a rational and wholesome drug, even if it did not achieve all that was claimed for it. As long as the supply of bitumen used in medicine came from such natural sources, little harm could have resulted from its use, when prescribed by a competent physician. But at least as early as the twelfth century, and possibly earlier, the Jews in Alexandria were obtaining for export supplies of what they believed to be bitumen (really resin) by breaking up Egyptian mummies which had been prepared with it. By ransacking the tombs, the purveyors of Alexandria obtained their supplies. In course of time a belief was encouraged that mummy was not efficacious as a drug unless it had been obtained from a human body, and the search for mummies, at first carried on surreptitiously, was thenceforth exploited openly as the only source from which medically effective mummy could be obtained. As the demand for human mummy increased, so the supply became more and more restricted, and the Egyptian Government naturally prohibited this traffic in dead bodies. Hence arose an incentive for fraud, which, once conceived, was carried out on a large scale. If genuine mummies could not be obtained, the purveyors had to consider other methods of supply. They solved the problem by manufacturing spurious substitutes. During the visit of La Fontaine to Alexandria

1 Leclerc, *Traité des Simples par Ibn el-Beithar*, iii, p. 346, No. 2190.

The Workes of that Famous Chirurgion Ambrose Parey, London, 1634, p. 448.

Hakluyt, *Voyages*, 1599, II, i, 201. "And these dead bodies are the Mummie which the Physitians and Apothecaries doe against our willes make us to swallow."

to which reference has been made, the principal figure in the mummy-trade, a Jew of Alexandria, was interviewed by him. The trader exhibited his stock of mummies, some forty or so in number, and informed La Fontaine that he had himself prepared them all within the last four years. His practice was to collect the bodies of slaves, or those of any other persons he could lay his hands upon, to open them, and to fill them with bitumen. This was done through the natural openings of the body, and by means of incisions made for the purpose. The bodies thus medicated were bandaged and dried in the sun, and the resulting preparations so closely simulated genuine ancient Egyptian mummies that the fraud was difficult to detect. In the course of his inquiries, La Fontaine asked if any of these bodies had died of disease or of plague. This question was met by the complacent answer that so long as bodies were obtained it mattered not to those who prepared them in what condition they might be.

Such was the description of the source of supply of mummy for the apothecaries' shops of Europe that was related to Paré on the traveller's return to France, and it is therefore scarcely surprising that the denunciation quoted above should follow. Paré's condemnation, however, did not convince all physicians of the evils of mummy-medicine. It must not be forgotten that magic still played a considerable part even in rational medicine. The medicinal value of bitumen was first derived from natural sources: the next stage was the pitch-like resinous substance obtained from mummified human bodies, and finally, it was forgotten that it was the properties of bitumen that were effective in medicine, and the virtue was transferred to the bodies themselves. Consequently in numerous medical books, as well as in popular collections of remedies, mummy still held its place long after the time of Paré.

Theophrastus Bombast von Hohenheim (Paracelsus, 1493-1541) devised a "balsam of mummy" and a "treacle of mummy," which were kept in vogue a century or more after his death.[1] The herbalists of the seventeenth century likewise kept the tradition alive. Thus John Parkinson (1567-1650) in his great herbal devotes a long chapter to the virtues of mummy[2]: he describes it as being "of much and excellent use in all countries of Europe." It is "the very body of a man or woman brought chiefly from Egypt or Syria (no other part of the world so good)." True mummy, according to this writer, must be embalmed in the Egyptian fashion, and not after the manner of the Jews, nor with Pissasphaltum. Parkinson was unconsciously right in discerning that true Egyptian mummies were not prepared with bitumen. He gives a crude woodcut of the mummy of a bearded man lying beside its sarcophagus.

It is thus evident that in the opinion of the time the virtue lay, not in the bituminous or resinous preparation of the corpse, but in the actual corpse itself. This idea gained ground, and the alleged virtue of mummy—the original *mumia*—gave place to that of the flesh itself, that is to say to the flesh of any dead body, not necessarily that of an Egyptian mummy. Nicholas Lemery (1645-1715) states that the original mummy was derived from Egypt, but in his time other sources were being exploited,[3] and bodies buried in the sands of Lybia were in demand. a fact to which Athanasius Kircher also refers.[4] Guanche mummies were also exported from the Canary Islands.[5]

Already Oswald Croll (Crollius, 1580-1609) had prescribed a kind of mummy to be made out of the body of a felon who had been hanged: preferably a man of ruddy

1 *Paracelsus his Dispensatory, . . . Faithfully English'd by W.D.* London, 1656, pp. 108 ff.
2 *Theatrum Botanicum: The Theater of Plants.* London, 1640, p. 1592.
3 *Traité des Drogues Simples*, 3rd. ed., Paris, 1723, p. 564.
4 Gannal, *Hist. des Embaumements*, 2nd ed., Paris, 1841, p. 76, note 1.
5 Hooten, *Harvard African Studies*, viii (1925), p. 39.

complexion, and about twenty-four years of age. He gives directions for the medication of the flesh, which had to be exposed for two days to the influence of the sun and moon.[1]

The word mummy at last lost its essential connexion with the human body, and became a term for medicated flesh in general. Thus Nicholas Culpeper (1616-1654) in one of his prescriptions says:—

"Take a Jay, pull off her feathers, and pull out her guts, then fill her belly full of Cummin-seeds: then dry her in an Oven, till she be converted into Mummy."[2]

In another prescription we read:—

"Take an Owl, pull off her feathers, and pull out her guts, salt her well for a week; then put her into a pot and stop it close, and put her into an oven. So she may be brought into Mummy. . . ."[3]

and again,

"Also take notice, that the foregoing way is the best way to convert any thing into Mummy; and so the Jay before mentioned is to be used."[4]

Later on still, the term "mummy" passed into cookery:—

"It must be very thick and dry, and the rice not boiled to a mummy."[5]

Amongst serious practitioners, mummy had to a great extent lost favour by the middle of the eighteenth century, although it survived long after in popular books of prescriptions and recipes. As regards real medical works, the following extract is typical of many of the period:—

"*Mummy—Mumia.*—This is the flesh of carcases which have been embalm'd. But altho' it yet retains a place in medicinal catalogues, it is quite out of use in Prescription. What virtues have been ascribed to it are the same with Parmasitty and other balsamics of the kind."[6]

Twenty years later, however, Dr. Robert James (Dr. Johnson's friend, 1705-1776) includes mummy in his pharmacopœia.

"Officinal Simples, taken from the human carcase, are the *Mummy*, which is a resinous, hardened, black shining Surface, of a somewhat acrid and bitterish Taste, and of a fragrant Smell. Under the Name of Mummy are comprehended first, the *Mummy* of the *Arabians*, which is a Liquament, or concreted Liquor, obtained in Sepulchres, by exudation from Carcases embalmed with Aloes, Myrrh and Balsam. If this *Mummy* could be procured right and genuine, it would be preferable to other Sorts. The second kind of *Mummy* is the *Egyptian*, which is a Liquament of Carcases seasoned with *Pissasphaltus*. A third Substance, which goes by the Name of *Mummy*, is a Carcase torrified under the Sand, by the Heat of the Sun; but such a one is seldom to be met with in our Country."[7]

The use of mummy in medicine was so well known amongst the general population, as apart from the physicians, that allusions to it are not infrequent in popular literature.

Shakespeare, for instance, several times makes allusion to mummy. "Witches' mummy" is one of the uncanny ingredients in the cauldron in *Macbeth* (Act IV,

1 Gannal, *op. cit.*, p. 49.
2 *Culpeper's Last Legacy*, London, 1671, p. 75.
3 *Ibid.*, p. 77.
4 *Ibid.*, p. 78.
5 Mrs. Glasse, *Cookery*, 1747, vi, p. 130.
6 James Alleyne, *New English Dispensatry*, London, 1733, p. 152.
7 James, *Pharmacopœia Universalis, or a New Universal Dispensatory*, 2nd ed., London, 1752, p. 340.

Scene 1). In the *Merry Wives of Windsor*, Falstaff declares ; " Water swells a man, and what a thing I should have been when I had been swelled ! I should have been a mountain of mummy " (Act III, Scene 5). Othello's handkerchief, which had great virtues, " was dy'd in mummy, which the skilful conserved of maiden's hearts." (*Othello*, Act III, Scene 4). Again, in the *Honest Lawyer*, of James Shirley (1596-1666), it is said :

" That I might tear their flesh in mammocks, raise my losses, from their carcasses turn'd mummy."

In *The Bird in a Cage* we read : " Make mummy of my flesh and sell me to the apothecaries." Sir Thomas Browne (1605-1682), writing in a more sober vein, made the following utterance in reference to fame after death."

" Egyptian ingenuity was more unsatisfied, contriving their bodies in sweet consistencies, to attend the return of their souls. But all was vanity, feeding the wind, and folly. The Egyptian mummies, which Cambyses or time hath spared, avarice now consumeth. Mummy is become merchandize, Mizraim cures wounds, and Pharaoh is sold for balsams." [1]

[1] *Hydriotaphia*, 1658, ch. v.